

THE
ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
TO THE
PENZANCE URBAN DISTRICT COUNCIL
FOR THE YEAR 1902.

PENZANCE :

BEARE AND SON, STEAM PRINTERS, 21, MARKET PLACE.

THE
Annual Report of the Medical Officer of Health
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GENTLEMEN,

I beg to present my Report for the year 1902.

**Inspection of the District: House Accommodation
and Repairs.**

During the year all parts of the district have been inspected. Seven new houses were certified for occupation in 1902 and connected with the water supply. Nine houses were closed, 10 structurally repaired. Two cases of overcrowding were abated. Improvement in house-room is best shown by the three last censuses, which give for 1881, 5·39 inmates; for 1891, 4·85 inmates; for 1901, 4·536 inmates per house. Three houses were ordered to be cleansed throughout on my certificate.

Improvement in Sanitary conditions of closets and house-drains is being maintained. A great number were put in order during the year. There appears to be no lack of houses for the working classes.

School Buildings.

I have visited all the Elementary Schools, most on several occasions, during the year. I do not think that the class and cloak-rooms of some of them are sufficiently often cleansed.

The influence of dirt on the spread of epidemics is marked, and a higher level of cleanliness would mean a real economy. Moreover it should have an educational effect, and make the future adult population dissatisfied with the dirty households in which many live. As the new Education Act places the management of the Schools in the hands of a Sanitary Authority I shall look for an improvement in this particular.

The outside offices I have found in good condition.

At the Wesleyan School the drains were found to be imperfect, and were relaid and intercepted.

Common Lodging Houses.

There are two houses of this class in the Borough, but I understand that neither of them is at present registered. The Police appear to be awaiting the advent of new Bye-laws. I hope the matter may be soon adjusted. These houses, which will be used in any case, are best kept under proper supervision.

Sewerage and Drainage.

The Sewers in the Alexandra Road and at the bottom of Market-jew Street having been discovered to be imperfect have been examined, mended, and in part relaid. A new and good Urinal has been provided for Prince's Street Market, and one is being built on the Folly Field (the new Pleasure Ground).

Scavenging.

The scavenging of the houses continues to be, on the whole, well conducted. I notice however, occasionally, a tendency to overfilling of the carts, causing lifting of the covers, and besprinkling of the roads, which should be checked.

Water Supply.

The piping of the water above Hendra is a necessary measure preventive of its pollution. I congratulate your Authority on its completion. The preparation for the erection of the new high level tank near the reservoirs is, I understand, now made. The high level tank, when placed, bids fair to render the supply of water to the highest levels of the Borough adequate.

The recent piping of our water to the new Isolation Hospital building in the Madron district is to me a matter of especial satisfaction.

The pumping at the Boscathnoe well has during the drier season of the year again usefully supplemented the supply from the reservoir, and prevented deficiency in the town supply.

Slaughter-houses, Dairies, Cowsheds, and Milkshops.

There are within the Borough 19 slaughter-houses, and 60 dairies, cowsheds, and milkshops. All are registered and inspected.

The Factory and Workshop Act, 1901.

Bakehouses.

During 1902, 15 bakehouses have been fully inspected, and registered. Many structural repairs to floors and walls were made. One was found to be in thoroughly good condition. In 13 cases limewashing or painting of walls and ceilings was enforced; in eight cases the ventilation was improved. One closet was ordered to be cleaned, two were altered in form, two had cisterns added, and four new closets were added. Since the end of the year two more have been inspected, making the registration of bakehouses complete. All are above ground level, and all comply with the requirements of the Act.

Other Workshops.

Milliners' and Dressmakers'. 25 were inspected and registered. It is believed that this is a complete list of the trade. 10 were found in good condition. In one re-papering was done; in three overcrowding was abated; nine had their ventilation improved; three closets were cleansed, two repaired, one had a cistern added, and one new closet was placed. In six cases no abstract of the Act was posted up, and the District Inspector of Factories was informed. In six cases the means of escape in case of fire were found inadequate. In four this has been remedied. Two are expected to be put right shortly. The maximum number employed in any establishment is 16.

Tailors'. 13 were inspected and registered. Four were found to be in good condition; three were limewashed; in five the ventilation was improved. In four cases overcrowding was found, in all these it has been abated (in two cases by the addition of a workroom). One closet was cleaned, and six new closets placed. In one case no abstract was posted, and the District Inspector of Factories informed. In all the means of escape from fire were found to be adequate.

Boot and Shoe=Makers'. 12 were inspected and registered. Seven were found to be in good condition; two were limewashed; in two improved ventilation was obtained, and four new closets were added. Means of escape from fire were adequate in all.

Carpenters'. 21 were inspected and registered. Five were found to be in good condition; two were structurally repaired; seven were limewashed; one ventilated; seven closets were cleansed; a new closet is being added. Means of escape from fire were adequate in all.

Cabinet=Makers'. One was inspected and registered, and found in good condition. Means of escape in case of fire are adequate.

Picture=Framers'. One was inspected and registered, and found in good condition. Means of escape in case of fire are adequate.

Coach=Builders'. Three were inspected and registered. One was found in good condition; one was limewashed; a closet (earth) was placed in the third. Means of escape from fire adequate.

Saddlers'. Four were inspected and registered. Two were found in good condition; one was further ventilated, and the closet cleansed and cistern added; in the other the closet was cleansed. Means of escape from fire are adequate.

Plumbers'. Nine were inspected and registered. Five were found in good condition; two were structurally repaired; one limewashed; two ventilated; one closet was cleansed, and one new closet added. Means of escape from fire are adequate.

Blacksmiths'. 10 were inspected and registered. Two were found in good condition ; one was limewashed ; one closet pan cleaned ; one needs structural repairs ; and five are without closet accommodation. Means of escape from fire are adequate.

Tinplate. Two were inspected and registered. One was found in good condition ; in the other the floor was repaired and the place limewashed. Means of escape from fire adequate.

Stone and Marble Masons'. Five were inspected and registered. Four were found in good condition ; one is without closet accommodation. Means of escape from fire adequate.

Serpentine. Three were inspected and registered. Two were in good order ; one was limewashed. Means of escape from fire adequate.

Basket-makers'. Nine were inspected and registered. Three were found to be in good condition ; one was structurally repaired ; five were limewashed ; one was ventilated ; one had its closet cleaned ; in one a new closet was placed. Means of escape from fire adequate.

Hatters'. One inspected, registered, and limewashed. Means of escape from fire ample.

Factories. Besides the above, two factories were inspected. One, the Sanitary Steam Laundry, was found to be in excellent condition, very clean, well lit, well ventilated, floor well drained, good closets ; the other, an Aerated Water Manufactory, was found to be well lighted and ventilated. The floor required repairs, which were done. Means of escape from fire adequate in both.

Since the end of 1902, two bakehouses have been inspected and registered ; also, the workshops of five cabinet-makers, two shipwrights, a coach-builder, and a dyer. These properly belong to a future Report.

Home Work.

A list of home workers has been supplied by the manager of the only business premises at present known to employ the same in a class of work coming under the provisions of these sections of the Act. The homes were visited, and found to be in a wholesome condition. No infectious diseases have been ascertained in any of them. Notice of the required lists has recently been sent to all trades concerned.

Vaccination.

The vaccination of infants appears to be well administered. I do not hear of any re-vaccination of adults proceeding.

Seizure of Food.

During the year one hamper of unsound Mackerel was seized and destroyed.

“Sale of Food and Drugs” Acts.

31 samples (26 milk, five of whisky) were purchased for analysis in 1902. The analyses were made, and as a result five prosecutions took place: two on account of milk, and three on account of whisky. All ended in conviction.

Interim Reports in 1902.

As in previous years fortnightly reports dealing with sickness, deaths, nuisances, defects in houses, water-fittings, &c., were regularly made to your Authority by the Medical Officer of Health, Sanitary Inspector, and Borough Plumber; and the usual monthly reports have been regularly sent by myself to the Chairman of the County Council Sanitary Committee.

Special Report.

A Special Report was called for by the Local Government Board on the outbreak of Measles during the last quarter of 1901. Copies were sent to the Local Government Board and Cornwall County Council on the 3rd March, and on the 5th March the report was read to your Sanitary Committee.

Illness of the Sanitary Inspector.

The Sanitary Department has been greatly handicapped in its work during the last four months of the year by the enforced absence through illness of our valued Sanitary Inspector, Mr. N. C. Whear, who, I hope, may shortly reach recovery.

Vital Statistics—1902.

The birth-rate which had shown a steady decline for the three preceding years sank in 1902 to the low figure of 20·336, being 4·24 below the average of the preceding 10 years. The death-rate was moderate—16·78, being nearly one below the average of the 10 years preceding. The rate of infantile mortality (calculated on the births), although still high, was the lowest but one recorded in the 11 years, and stood at 148·7, being 39 below the average of the 10 previous years. This is a gratifying improvement. The zymotic death-rate (2·87) is above the average.

Births and Deaths according to Sex.

Of 269 births 139 were male, 130 female; of 222 deaths 102 were of males, 120 of female persons. It will be seen that female deaths are in excess.

Deaths arranged according to Age-periods.

The following table shows the deaths at various age-periods of persons belonging to Penzance, compared with the average of the same for the six preceding years. For the years 1901 and 1902 the number is corrected by the exclusion of deaths of non-residents within public institutions in the district, and by the addition of deaths of former residents in the Madron Union Workhouse.

	All ages.	0—1.	1—5.	5—15.	15—25.	25—65.	65 & upwards.
1896—1901.	218	56	16	4	8	68	64
1902.	226	40	32	10	5	69	70

The marked features in 1902 are the great saving in lives in the first year—the number of deaths being less than three-quarters of the average, the doubling of deaths at between one and five years of age, and the more than doubling at the 5—15 age period.

Seasonal Distribution of Deaths.

The following table shows the seasonal distribution of deaths within Penzance, compared with the averages of the six preceding years :—

		1896—1901.	1902.
1st Quarter	...	61	60
2nd „	...	47	41
3rd „	...	57	53
4th „	...	52	68
		<u>217</u>	<u>222</u>

The high incidence of mortality on the last quarter of the year will be observed. It fell upon children of from one to five years of age, carried off by Diphtheria, and on persons of 65 years and upwards, on account of heart and respiratory diseases.

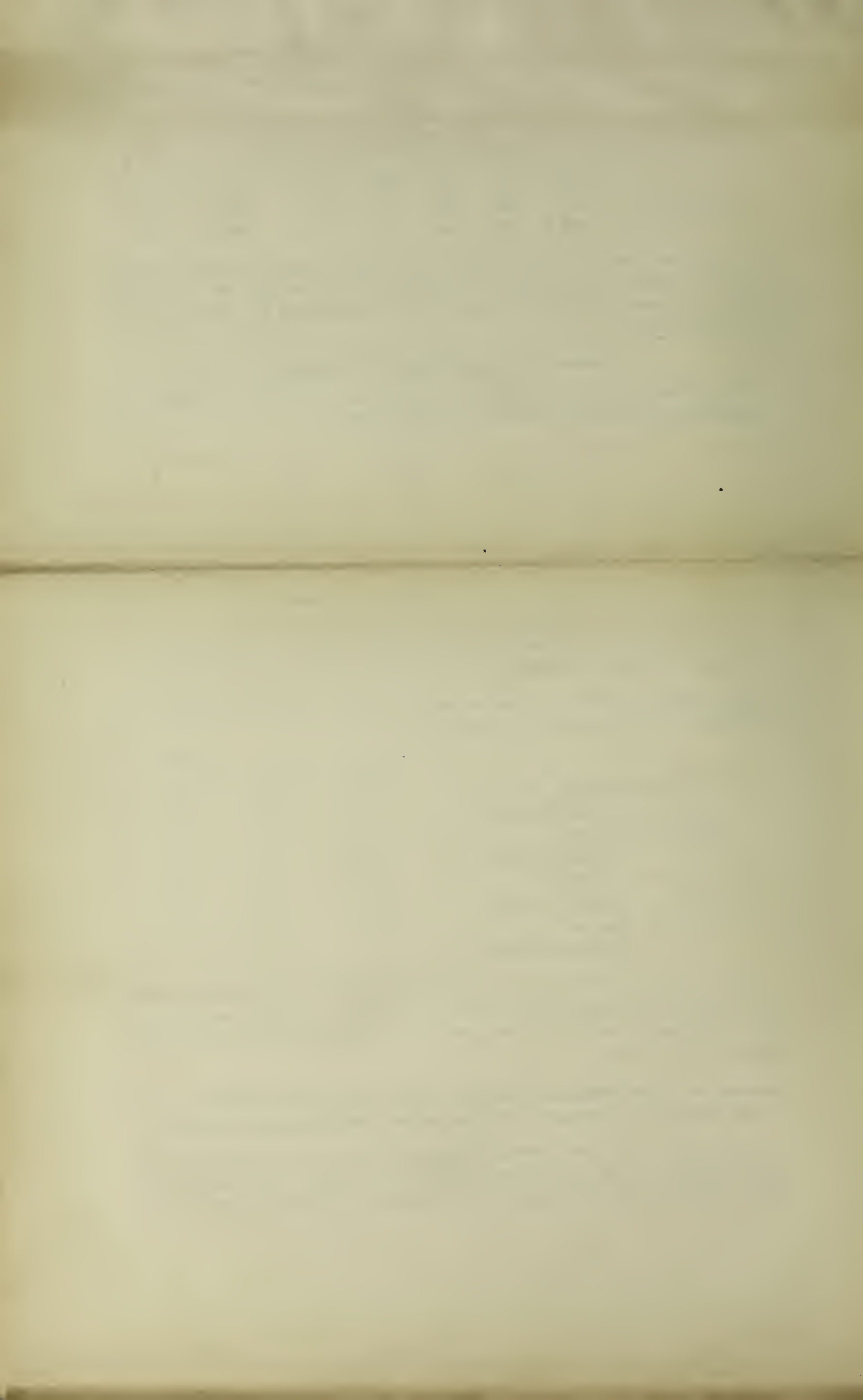
The principal rates for the quarters are as follows. Those for England and Wales are given for purposes of comparison :—

		Birth-rate	Death-rate.	Infantile Mortality.
1st Quarter—Penzance	...	17·8	18·4	152
„ England and Wales	...	28·6	18·6	140
2nd Quarter—Penzance	...	16·9	12·4	142
„ England and Wales	...	28·8	16·1	120
3rd Quarter—Penzance	...	24·2	16·0	175
„ England and Wales	...	29·0	13·9	125
4th Quarter—Penzance	...	22·4	20·6	122
„ England and Wales	...			

With regard to the birth-rates thus considered, it will be seen that at Penzance they were especially low for the first two quarters of the year. The death-rate was low in the second quarter, but high in the fourth. The infantile mortality was especially high in the third quarter.

Deaths of Non-Residents at the West Cornwall Infirmary, and of Penzance Persons at the Union Workhouse, Madron.

Of six deaths at the West Cornwall Infirmary, five were of non-residents brought in for treatment. On the other hand nine deaths took place at the Union Workhouse, Madron, of persons transferred from Penzance. Corrected in these respects,



the net death-rate of Penzance persons rises from 16·78 to 17·08 per 1000 per annum. Two of the persons thus counted were however known to be quite recent comers to the town, so that the death-rate may be more nearly stated at 17.

Causes of Death.

The principal causes of death among our own people in our own district are shown in the following table, with averages for the six preceding years :—

	Diphtheria.	Whooping Cough.	Diarrhœa.
1902.	21	7	9
Av. 1896—1901.	33	3·5	12·66

	Phthisis.	Cancer.	Bronchitis and Pneumonia.	Heart Disease.
1902.	16	5	33	25
Av. 1896—1901.	16·33	12·16	28·16	15·66

Of the deaths from Phthisis one was of a recent comer. It is noteworthy that the deaths from Cancer are less than a half of the average of preceding years. Deaths from Respiratory Diseases are however in excess, and deaths from Heart Disease proportionally more so. Deaths from Heart Disease were 14 in 1900, and 19 in 1901.

The seasonal incidence of these four classes of deaths was as follows :—

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
Phthisis	6	4	1	5
Cancer	0	0	2	2
Bronchitis and Pneumonia	14	2	6	11
Heart Disease	8	3	2	12

Deaths from Respiratory Diseases doubled the average in the last two quarters (as compared with previous years), and those from Heart Disease nearly doubled the average in the 1st quarter, and nearly tripled the average in the 4th.

As regards age distribution these classes are grouped thus :—

	0—1	1—5	5—15	15—25	25—65	65 & upwards
Phthisis	1	1	...	1	13	...
Cancer	...	...	...	...	2	2
Bronchitis and Pneumonia	7	5	...	...	11	10
Heart Disease	...	1	1	2	9	12

Deaths from Diphtheria, Whooping Cough, and Diarrhœa will be treated later on. In addition there were three deaths from Influenza in March (at 52, 36, and four years), five from Enteritis (four in the first year of life), six from Tubercular Diseases other than Phthisis (five in the 1—5 age period), three from Laryngitis and

Asthma, one from Cirrhosis of the liver. Four women died as the result of child birth (including one from Puerperal Fever), six children died as the result of premature birth, one man died from accident, and one (a visitor) committed suicide.

There were no deaths from Measles, Scarlet Fever, or Typhoid.

Notifiable Diseases.

Infectious diseases notified during the year were:—Smallpox 1, Diphtheria 86, Erysipelas 2, Scarlet Fever 20, Typhoid Fever 3, Puerperal Fever 1.

The case of Smallpox (in a male aged 32 years), notified on April 22nd, was acquired at Lower Gore, where he had been working on Smallpox Hospital Extension Works until April 15th. There he had refused an offer of re-vaccination. Fortunately the malady was recognised at sight on the first appearance of the rash, and the patient forthwith removed to the Borough Isolation Hospital. The home surroundings were at once disinfected, and contacts re-vaccinated. The disease, fortunately modified by infantile vaccination, ran a typical course until the suppurative stage was reached, when it aborted with slight results. The patient was discharged, convalescent, on May 24th.

The cases of Erysipelas (at 52 and 65 years of age) were notified on July 31st and August 7th, and made recovery.

The Typhoid cases, notified in March, April, and August, were of a mild character. Ages were 50, 35, and 24 years.

The case of Puerperal Fever in a woman of 28 years, confined a week before of twins, both of whom shortly afterwards died, was notified on the 16th, and died on the 18th May, at a time when Diphtheria was in the near neighbourhood.

The Diphtheria Outbreak.

In 1901 (on December 20th) one case of Diphtheria—one only—was notified. In 1902 86 cases, resulting in 21 deaths, were notified: from January 27th onward to the end of the year, with blanks from February 12th to May 11th, and from July 14th to Sept. 7th. In addition to these were unnotified cases, usually discovered by having carried contagion to others. Moreover I have heard all the time of a number of indefinite throats. I do not know that the first notified case was the first real one, and as there have been 12 cases notified in 1903 up to the date of this Report, although the return shows a diminishing number and I hear of fewer "throats" I cannot predict that I have seen the last.

The numbers of cases and of deaths for the months of 1902 were :—

	Cases.				Deaths.			
January	...	...	...	1	...	...	...	0
February	...	...	...	2	...	...	...	1
March	...	...	...	0	...	...	...	0
April	...	...	...	0	...	...	...	0
May	...	...	...	8	...	...	...	3
June	...	...	...	3	...	...	...	0
July	...	...	...	4	...	...	...	1
August	...	...	...	0	...	...	...	0
September	...	...	...	21	...	...	...	5
October	...	...	...	24	...	...	...	3
November	...	...	...	13	...	...	...	5
December	...	...	...	10	...	...	...	3
				<u>86</u>				<u>21</u>

The maximum in October and November corresponds with the usual seasonal curve of the disease. However the disease may have been introduced there was plenty of evidence that it spread mainly by contact, aided on two occasions by large gatherings, especially of children, at the Recreation Ground. Only once did I suspect school influence, and that in the case of one only Elementary School. This School was accordingly closed from the 16th to the 22nd September, and thoroughly cleansed and disinfected. On its re-opening this special batch of cases received no addition. For the rest the cases had at various periods various school-attendances and various milk supplies, and there was at no time any run suggesting milk or water infection. Nor had I suspicion in any case of drain or sewer emanation. The disease showed a tendency to move from house to house in the same and neighbouring streets, appearing especially in households on visiting terms. Both primary and secondary cases especially clung to such houses as were in a dirty condition. Private schools were but little affected. I believe that unnotified cases were chiefly responsible for the spread.

I personally visited the houses, saw a majority of the cases, ascertained schools and milk supplies, urged such isolation as was obtainable, and instructed as to cleansing and disinfection, more particularly as to the reasonable use of Izal, which was supplied to almost all cases by your Authority through the Sanitary Inspector. On discovery of each case the Schools were warned, and the School Attendance Officer and Librarian of the Free Public Library informed. Your Steam Disinfectant was used in some cases, and during the height of the outbreak some houses were thoroughly cleansed by an officer engaged by you for the purpose. I was only able to get one person (a child) removed to the Cottage Isolation Hospital, although I made several offers to the friends of the patients in the earlier period of the outbreak. Unfortunately at its worst period the small Hospital was occupied by a succession of Scarlet Fever cases, and I did not think it proper in such a limited space, with one nurse only in charge, to admit cases of another kind.

The Elementary Schools of the Borough were closed by your Authority on December 10th, for a month, and the Sunday Schools at your suggestion remained shut for the same period. I do not think the action had any discoverable influence, for good or bad, on the progress of the outbreak.

So far as treatment of the cases throughout the outbreak was concerned, I did not gather a good opinion of the value of Diphtheria Antitoxin. I do not desire to dogmatise thereon, but think it right to state the fact to add to the general evidence, on which elsewhere, I know, a verdict has often been pronounced in its favour. The case taken into hospital was "antitoxinised" just before admission. Marked depression of vitality followed, and the case made a lingering recovery. I gathered the opinion that in others thus treated there seemed a special liability to symptoms suggesting local paralyses. The best record (viz.—of seven cases without fatality) belongs to a colleague who did not use it in any case. It is held by others to have markedly and promptly cleaned throats of membrane.

The following table shows the age-incidence of cases and deaths.

	Under 1 year.	1—5	5—15	15—25	25—65	65 & upwards.
Cases	0	23	54	2	7	0
Deaths	0	12	9	0	0	0

The comparative exemption of infants in the first year of life is marked. Many cases were of the greatest severity, especially in the 1—5 age period, where the fatality proved high.

Scarlatina.

20 cases of Scarlatina were notified during the year, viz.—three in August, six in October, eight in November, three in December. As there have been so far nine cases in 1903, it is probable that we shall have some more. Two cases were removed to the Cottage Isolation Hospital, and made good recoveries. These cases were of a mild character, as have, I believe, been all the others. The usual precautionary measures were adopted in all. No deaths took place. School attendances and milk supplies were various. Ages of those affected were: (1—5) 5; (5—15) 13; (25—65) 2. Contact was ascertained or reasonably suspected as the cause of the majority of cases.

Whooping Cough.

From January to July (inclusive) seven deaths from Whooping Cough took place (viz.—four under 1 year of age, three between 1 and 5).

Diarrhœa.

9 deaths from Diarrhœa (all in infants within the first year of life) occurred between August 29th and September 30th. This represents an improvement on the average of the preceding six years (12·66), and is a pleasing feature of the decreased infantile mortality for the year.

Isolation Hospital Accommodation.

I congratulate your Authority on having installed upon the new site outside the Borough a Hospital building, which makes provision for 12 patients, including a reception and discharge ward, as well as on the arrangement you have entered into for the reception of cases of infectious disease occurring within the limits of jurisdiction of the Port Sanitary Authority. I hope you may be able by agreement to further provide for your security by the admission of such cases from the Paul and Madron Urban districts. Any such case arising in either is a menace to your own inhabitants, and the recent Diphtheria outbreak, like previous ones, suffices to show how readily infection is conveyed between the three districts. The interests of the three are identical, and a realisation of this should lead to a joint provision. The prompt isolation of cases in the recent outbreak would have assuredly lessened its spread in all of the districts affected.

Now that water has been laid on to the new Hospital building, and the necessary furniture supplied, we shall be able to more satisfactorily meet our needs, and, I hope, the needs of our neighbours.

The Thresh Steam Disinfector.

This also has been delivered and housed during the past year. It has been several times used, and has proved satisfactory in action. I hope that, like the Hospital, it may be made available to the adjoining districts.

I am, Gentlemen,

Yours faithfully,

RICHARD DAVEY BOASE,

Medical Officer of Health, Penzance.

5, MORRAB ROAD,

PENZANCE,

February 18th, 1903.

PENZANCE CLIMATOLOGICAL RECORD FOR 1902.

(Under the supervision of the Royal Meteorological Society).

TEMPERATURE.

	JAN.	FEB.	MAR.	APRIL.	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.
Maximum	54° 0	53° 5	55° 6	57° 7	65° 0	74° 6	72° 5	72° 0	69° 0	62° 2	60° 6	55° 0
Minimum	32° 0	27° 4	34° 5	35° 0	40° 2	44° 8	45° 7	49° 0	44° 5	39° 5	32° 0	31° 7
Mean Maximum ..	49° 33	45° 79	52° 79	54° 64	57° 0	61° 68	67° 15	67° 48	64° 83	58° 84	54° 79	49° 30
Mean Minimum ..	42° 93	36° 30	43° 95	43° 23	45° 45	52° 27	54° 37	55° 79	53° 59	49° 66	46° 72	42° 55
Mean of Means ..	46° 13	41° 04	48° 37	48° 93	51° 22	56° 97	60° 76	61° 63	59° 21	54° 25	50° 75	45° 92
Mean Range ..	6° 40	9° 48	8° 84	11° 41	11° 55	9° 41	12° 78	11° 69	11° 23	9° 18	8° 07	6° 75

Mean of Maxima	...	...	...	...	...	...	...	...	...	...	56° 96.
Mean of Minima	...	...	...	...	...	...	...	...	...	...	47° 23.
Mean Temperature for the Year	...	...	...	...	...	...	...	...	...	...	52° 01.
Mean Temperature for Winter Months	...	...	...	...	...	...	...	...	...	...	45° 96.
Winter Mean Range	...	...	...	...	...	...	...	...	...	...	7° 67.
Total Sunshine	...	...	...	...	...	...	...	1739 hours	50 min.		
Average Daily Sunshine	...	...	...	...	...	...	...	4 hours	46 min.		
Mean Humidity	...	...	...	...	...	...	...	...	...	...	79.
Rainfall during Year	...	...	...	...	...	...	...	...	34° 85 inches.		

CHARLES H. BENN, F.R. MET. SOC.,
Borough Meteorologist.

